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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,557	12/20/2003	Bertil JONSSON	07589.0141.PCUS00	1556
28694	7590	06/30/2004	EXAMINER	
TRACY W. DRUCE, ESQ. 1496 EVANS FARM DR MCLEAN, VA 22101			KIM, TAE JUN	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/707,557	Applicant(s) JONSSON, BERTIL	
	Examiner Ted Kim	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/20/2003</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Applicant's priority claim is as a continuation of PCT/SE02/01235 filed 20 June 2002. However, no copy of the PCT application has been submitted.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 7, 9, 10 are rejected under 35 U.S.C. 102(b) as being anticipated by

Savonuzzi (3,167,914). Savonuzzi teaches a gas turbine comprising: a duct for carrying gas from a gas turbine inlet to a gas turbine outlet, an outer housing 11 arranged radially outside a wall structure, e.g. 33 and the wall downstream, that defines radially outer limits of the gas duct; the gas turbine, between the inlet and outlet, comprising a plurality of modules, each of which comprises a part of the outer housing and a part of the wall structure of the gas duct; at least two adjacent parts of the wall structure, 33 and the wall downstream, of the gas duct are arranged at a distance from one another; and at least one pressure dividing element 32 that divides off a pressure area in the gas duct at a junction between the two adjacent parts of the wall structure from another pressure area situated between the wall structure of the gas duct and the outer housing, the pressure dividing element consisting of a pressure wall extending from the wall structure of the gas duct to the outer housing 11; the pressure wall is provided with a first flange extending radially outwards on the outer periphery of pressure wall for

pressure-tight connection; the pressure wall is provided with a second flange on the inside diameter of the pressure wall for pressure-tight connection to the wall structure of the gas duct.

4. Claims 1-4, 6-10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Collman et al (3,077,074). Collman et al teach a gas turbine comprising: a duct for carrying gas from a gas turbine inlet to a gas turbine outlet, an outer housing (includes 27, 101, 96) arranged radially outside a wall structure (including 37, 39) that defines radially outer limits of the gas duct; the gas turbine, between the inlet and outlet, comprising a plurality of modules, each of which comprises a part of the outer housing and a part of the wall structure of the gas duct; at least two adjacent parts of the wall structure of the gas duct are arranged at a distance from one another; and at least one pressure dividing element (40, 34 together) that divides off a pressure area in the gas duct at a junction between the two adjacent parts of the wall structure from another pressure area situated between the wall structure of the gas duct and the outer housing, the pressure dividing element consisting of a pressure wall extending from the wall structure of the gas duct to the outer housing 101, 96; wherein the pressure wall is connected to the wall structure of the gas duct 39 and to the outer housing 96 of the same module by means of a bolted connection between 101 and 156 (see col. 5, lines 15-67); the pressure wall is provided with a first flange 156 extending radially outwards on the outer periphery of pressure wall for pressure-tight connection; the pressure wall is provided with a second flange on 40 on the inside diameter of the pressure wall for pressure-tight connection to the wall structure of the gas duct; the pressure wall is made of metal.

5. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ebel (6,131,384). Ebel teaches a gas turbine comprising: a duct for carrying gas from a gas turbine inlet to a gas turbine outlet, an outer housing 7 arranged radially outside a wall structure that defines radially outer limits of the gas duct; the gas turbine, between the inlet and outlet, comprising a plurality of modules, each of which comprises a part of the outer housing and a part of the wall structure of the gas duct; at least two adjacent parts 9a, 6 of the wall structure of the gas duct are arranged at a distance from one another; and at least one pressure dividing element 8 that divides off a pressure area in the gas duct at a junction between the two adjacent parts of the wall structure (9a, 6) from another pressure area situated between the wall structure of the gas duct and the outer housing, the pressure dividing element consisting of a pressure wall 8 extending from the wall structure of the gas duct to the outer housing; wherein the pressure wall is connected to the wall structure of the gas duct and to the outer housing of the same module by means of a bolted connection 12; the pressure wall is provided with a first flange 8c extending radially outwards on the outer periphery of pressure wall for pressure-tight connection; the pressure wall is provided with a second flange at the end of 8a on the inside diameter of the pressure wall for pressure-tight connection to the wall structure of the gas duct; the pressure wall is made of metal; the pressure wall has at least one bellows-*shaped* section.

6. Claims 1-4, 6-10, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan (5,127,606). Chan teaches a gas turbine comprising: a duct 24 for carrying gas from a gas turbine inlet to a gas turbine outlet, an outer housing 30, 70 arranged radially outside a wall structure that defines radially outer limits of the gas duct; the gas turbine, between the inlet and

Art Unit: 3746

outlet, comprising a plurality of modules, each of which comprises a part of the outer housing and a part of the wall structure of the gas duct; at least two adjacent parts of the wall structure 14, 15 at the aft end of the gas duct are arranged at a distance from one another; and at least one pressure dividing element 76 that divides off a pressure area in the gas duct at a junction between the two adjacent parts of the wall structure from another pressure area situated between the wall structure of the gas duct and the outer housing, the pressure dividing element consisting of a pressure wall extending from the wall structure of the gas duct 14, 15, to the outer housing 30, 70; wherein the pressure wall is connected to the wall structure of the gas duct and to the outer housing of the same module by means of a bolted connection; the pressure wall is provided with a first flange extending radially outwards on the outer periphery of pressure wall for pressure-tight connection; the pressure wall is provided with a second flange on the inside diameter of the pressure wall for pressure-tight connection to the wall structure of the gas duct; the pressure wall is made of metal.

7. Claims 1, 3-7, 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Howard et al (2625,013). Howard teaches a gas turbine comprising: a duct 26 for carrying gas from a gas turbine inlet to a gas turbine outlet, an outer housing 22, 19, 36 arranged radially outside a wall structure including 26, 21, 86, 87 that defines radially outer limits of the gas duct; the gas turbine, between the inlet and outlet, comprising a plurality of modules, each of which comprises a part of the outer housing and a part of the wall structure of the gas duct; at least two adjacent parts of the wall structure 86, 87 of the gas duct are arranged at a distance from one another; and at least one pressure dividing element 37a that divides off a pressure

Art Unit: 3746

area in the gas duct at a junction between the two adjacent parts of the wall structure from another pressure area situated between the wall structure of the gas duct and the outer housing, the pressure dividing element consisting of a pressure wall extending from the wall structure of the gas duct 86, 87 to the outer housing 19, 36; the pressure wall is provided with a first flange extending radially outwards on the outer periphery of pressure wall for pressure-tight connection; the pressure wall is provided with a second flange on the inside diameter of the pressure wall for pressure-tight connection to the wall structure of the gas duct; the pressure wall is made of metal; the pressure wall has at least one bellows-shaped section

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the above prior art in view of the ordinary skill in the art. The above prior art employs pressure walls that by cross section appear to be metal or are disclosed as metal. However, in order to obviate any doubt, making walls of gas turbines out of metal is notoriously old and well known in the art and it would have been obvious to make them of metal as being a well known and conventional material used in the art.

10. Claim 2, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Savonuzzi (3,167,914) or Howard et al (2625,013), as applied above, and further in view of

Art Unit: 3746

either Collman et al (3,077,074) or Ebel (6,131,384). Savonuzzi and Howard et al teach various aspects of the claimed invention but do not teach using a bolted connection for the pressure wall and outer housing. Collman et al and Ebel, as applied above, teach employing a bolted connection for the pressure wall and the outer housing. It would have been obvious to one of ordinary skill in the art to employ a bolted connection for the two as a well known type of connection employed in the gas turbine art which allows for easy assembly and/or disassembly.

11. Claims 5, 11 are rejected under 35 U.S.C. 103(a) as being obvious over Ebel (6,131,384) or Savonuzzi (3,167,914), as applied above, in view of Horler et al. (4,534,700). Ebel and Savonuzzi teach various aspects of the claimed invention including a pressure wall. Horler et al teach a turbine with a pressure wall 8 that connects the gas wall 1, 7 with the outer wall 2, 3 via a bolted connection. The pressure wall 8 has a bellows-shape (Fig. 2 or Fig. 3, especially) to accommodate thermal expansion. It would have been obvious to one of ordinary skill in the art to employ a bellows-shape pressure wall to accommodate thermal expansion.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 703-308-2631. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are

Art Unit: 3746

703-872-9306 for Regular faxes and 703-872-9306 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu, can be reached on 703-308-2675.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone number is 703-308-0861.

General inquiries can also be directed to Technology Center Customer Service Office at 703-306-5648 or the Patents Assistance Center whose telephone number is 800-786-9199.

Furthermore, a variety of online resources are available at

<http://www.uspto.gov/main/patents.htm>



Ted Kim
Primary Examiner
June 16, 2004

Telephone	703-308-2631
Fax (Regular)	703-872-9306
Fax (After Final)	703-872-9306

Technology Center 3700 Receptionist
Technology Center 3700 Customer Service
Patents Assistance Center

Telephone	703-308-0861
Telephone	703-306-5648
Telephone	800-786-9199